NewsRelease

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NASA LANGLEY FORECAST

High mobility, partly bumpy, winners expected

*** * *JULY 4TH SPECIAL: Documents of democracy no longer in danger! * * ***
When the Declaration of Independence, the U.S. Constitution and the Bill of Rights began to show signs of deterioration, a team of NASA Langley Research Center scientists was called in to help. Their mission: to determine why the United States' most important documents may be sealed in an unhealthy atmosphere. The team presented their final report to the National Institute of Standards and Technology (NIST), the organization contracted to provide encasements to the National Archives. The re-encased Charters of Freedom will be available for display by September 2003 at the National Archives in Washington, D.C.
For images go to: http://oea.larc.nasa.gov/news_rels/2002/images/charters.html
For more information, call Chris Rink at 757-864-6786 or email c.p.rink@larc.nasa.gov

MISSE-2: the sequel. Lethal radiation, micrometeoroids, extreme temperatures and man-made debris can destroy satellites and spacecraft – ultimately halting the future of space exploration. In response to this threatening possibility, the second half of the Materials International Space Station Experiment (MISSE-2) is scheduled to travel to space aboard STS-114 in early 2003. Two suitcase-like Passive Experiment Containers (PECs) are being prepared now and will test how materials perform in space's harsh environment. After a three-year stay in space, the PECs will return to NASA's Langley Research Center for examination and analysis.
For images go to: http://oea.larc.nasa.gov/news_rels/2002/images/misse.html
For more information, call Bill Uher at 757-864-3189 or email w.c.uher@larc.nasa.gov

The future of flight - NASA's vision takes off. Imagine traveling from Norfolk, to business meetings in Detroit and St. Louis, and then returning home in time for dinner with your family. Thanks to a partnership between NASA and the National Consortium for Aviation Mobility (NCAM), travel plans like this may be available sooner than you think. NASA has selected NCAM to lead a research team to develop the Small Aircraft Transportation System (SATS) concept. SATS involves the use of small, technologically advanced aircraft that promise safer, more reliable, more efficient and more affordable air service to the nation's 5,400 available airports. NCAM is made up of over 130 members from private businesses and public entities nationwide and is expected to grow. NASA and other government agencies will contribute up to $40 million by 2005 in support of the joint-sponsored SATS research agreement.
For image go to: http://oea.larc.nasa.gov/news_rels/2002/images/ncam.html
For more information, call Keith Henry at 757-864-6120 or email h.k.henry@larc.nasa.gov

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A turbulent spring. Researchers from NASA's Langley Research Center are going over scientific results they collected during more than a dozen stormy weather flights made this spring. A NASA 757 flying laboratory went searching for turbulence associated with thunderstorms … the kind of rough air most pilots try to avoid. NASA is helping to develop a Doppler radar system that can detect some turbulence before a plane encounters it.
Video, interviews and photographs are available upon request.
For information, call Kathy Barnstorff at 757-864-9886 or email k.a.barnstorff@larc.nasa.gov

If you build it ... NASA and the FAA might use it! University and high school students are invited to design "Revolutionary Vehicle Concepts and Systems" for a nationwide competition now being launched. Winners will be announced in April 2003. Details will be available August 15 at http://avst.larc.nasa.gov. The top six teams from this year's competition include students from Kansas State University, Georgia Institute of Technology, George Mason University, University of Virginia, a partnership between Virginia Polytechnic Institute & State University and Loughborough University, and Ohio University. These teams and their projects will be recognized July 26 at the annual EAA AirVenture fly-in at Oshkosh, Wis.
For more information, call Keith Henry at 757-864-6120 or email h.k.henry@larc.nasa.gov

Shuttle replacement may get new protective "ARMOR." What's better than a lightweight spacecraft skin that can take a 3,000-degree Fahrenheit beating and still return the spacecraft safely home? The answer may be a new thermal protection system technology called ARMOR (Adaptable, Robust, Metallic, Operable, Reusable). The next generation of reusable launch vehicles requires enhanced protection from low-speed impacts, high-speed on-orbit impacts and rain erosion. Several ARMOR panels have been fabricated for NASA Langley Research Center by BFGoodrich Aerostructures Group, Chula Vista, Calif. One advance to date: The damage-resistant, lightweight, metallic panels can be readily removed for inspection or repair. For images go to: http://oea.larc.nasa.gov/news_rels/2002/images/armor.html
For more information, call Keith Henry at 757-864-6120 or email h.k.henry@larc.nasa.gov

Speaker series:

July 9 – Unmanned air vehicles: the possibilities are endless.

Presented by Mr. Michael J. Logan, head of the Small Unmanned Aerial Vehicle Lab (SUAVELab)
Unmanned aerial vehicles, or UAVs, have been hovering in the limelight of recent aerospace developments – and for good reason. The military is actively using UAVs to combat terrorism in Afghanistan. Commercial firms are investigating the use of UAVs for applications such as agriculture and communications. Many of these current uses involve large aircraft, such as Predator, Helios and Global Hawk. But numerous applications exist for smaller and more affordable UAVs, particularly for civilian use. Logan will talk about these potential civil uses and describe the vehicles being developed by a team at NASA Langley's SUAVELab.
For image go to: http://oea.larc.nasa.gov/news_rels/2002/images/logan.html
For more information, call Kimberly W. Land at 757-864-9885 or email k.w.land@larc.nasa.gov

August 13 – Incident reporting systems attract global attention.

Presented by Chris Johnson, professor of Computing Science, University of Glasgow, Scotland.
Incident reporting systems are gaining popularity … and raising eyebrows. In Europe, guidelines are being drafted for air traffic management. Similarly, the United Kingdom is developing requirements for the reporting and analysis of control system failures. But do more reports always prevent future incidents? Johnson will discuss the effectiveness of incident reporting techniques. He also will describe the range of techniques that have been used to help monitor incident reporting systems in the UK rail, aviation and healthcare industries.
For more information, call Kimberly W. Land at 757-864-9885 or email k.w.land@larc.nasa.gov